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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,169	01/02/2002	Dan Boneh	36321.8009	7811
22918	7590	12/30/2005	EXAMINER TO, BAO TRAN N	
PERKINS COIE LLP P.O. BOX 2168 MENLO PARK, CA 94026			ART UNIT 2135	PAPER NUMBER
DATE MAILED: 12/30/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/038,169	BONEH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Bao Tran N. To	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

1. Applicant's Amendment filed on 10/06/2005 has been entered. In this Amendment, Applicant amended Claims 1, 2, 7, 18 and 26-27. Claims 1-28 are pending in this application.

### ***Response to Arguments***

2. Applicant's arguments filed 10/06/2005 have been fully considered but they are not persuasive.

Applicant argues "Claim 14 includes the language "determining that the at least one electronic request includes sensitive data (and) encrypting the sensitive data." Again, Lewis et al. do not determine whether an electronic request includes sensitive data, and then encrypt the sensitive data."

Examiner respectfully disagrees with this above argument. Lewis expressly discloses "The customer then initiates transmission of all of the purchase information (e.g. addresses, purchase amount, and credit/check information) via the Internet 30 to the web server 150 and passes on the transaction request to the transaction server 180" (col. 17, lines 15-30). Therefore, the web server recognizes the electronic request includes sensitive data such as credit/check information. In addition, Lewis discloses "when the radio button is pressed, all customer information is digitally signed and encrypted" (col. 15, lines 20-25). Accordingly, the sensitive data is encrypted.

Applicant further argues with the rejection of Claims 17 and 28 "however, Lewis et al. do not disclose a request for encrypted sensitive data, nor retrieving the encrypted sensitive data."

Examiner respectfully disagrees with this contention. Lewis expressly discloses "For credit card purchase/refunds the transaction is sent from the transaction server 180 to the credit bureau 9 by SSL standard encryption for secure packaging of the transaction (col. 14, lines 35-40). In addition, Lewis discloses "In Figure 6, the customer password and identification is entered and verified, at step 215 the web server 150 retrieves the previously stored customer record" (col. 11, lines 50-55).

Therefore, the rejection basis dated on 07/12/2005 is maintained.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 2-6, 8-26 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Lewis et al. (U.S. Patent 6,233,565 B1) herein referred to as Lewis.

Regarding on Claims 2 and 26, Lewis discloses a method for protecting sensitive information within server environments, comprising:

identifying configured sensitive data elements inside the electronic request (col. 3, lines 15-30 and col. 14, lines 30-40); and

applying at least one cryptographic operation to sensitive data in response to the at least one electronic request (col. 14, lines 25-28),

wherein sensitive data of the at least one electronic request is encrypted before transfer among components of the server environment (col. 14, lines 25-30)

wherein encrypted sensitive data of the server environment is decrypted before transfer from the server environment (col. 17, lines 1-3).

Claims 17 and 25, Lewis discloses a method for securing sensitive information within server systems, comprising:

evaluating at least one electronic request received from at least one third-party system via at least one proprietary channel (col. 3, lines 15-30 and col. 14, lines 30-40);

determining the at least one electronic request includes a request for encrypted sensitive data and retrieving the encrypted sensitive data (col. 22, lines 40-50);

decrypting the encrypted sensitive data (col. 16, lines 65-67); and

providing the decrypted sensitive data to the at least one third-party system (col. 17, lines 1-5).

Regarding on Claim 28, Lewis discloses a system for protecting sensitive information residing in server environments, comprising at least one processing device

coupled among at least one network and at least one client computer (col. 2, lines 30-33), wherein the at least one processing device (server):

receives at least one electronic transaction query (transaction request) from the at least one client computer (client) via at least one secure channel (SSL) (col. 5, lines 30-40 and col. 15, lines 40-45);

evaluates the at least one electronic transaction query for sensitive data (col. 3, lines 15-30 and col. 14, lines 30-40);

encrypts the sensitive data (col. 14, lines 26-28);

transfers the encrypted sensitive data among components of the server environment (col. 29, lines 27-34);

receives at least one electronic information query for the encrypted sensitive data from at least one third-party system via the at least one secure channel (col. 14, lines 25-29);

decrypts the encrypted sensitive data in response to the at least one electronic information query (col. 16, lines 65-67); and

provides the decrypted sensitive data to the at least one third-party system via the at least one secure coupling (private network connection) (col. 17, lines 1-5).

Regarding on Claim 3, Lewis discloses the limitations as discussed in Claims 2, 26 and 27 above. Lewis further discloses: comprising determining that the at least one electronic request includes sensitive data (col. 14, lines 35-40).

Regarding on Claim 4, Lewis discloses the limitations as discussed in Claims 2, 26 and 27 above. Lewis further discloses: wherein identifying comprises identifying tags indicating that associated data is sensitive data (col. 37, lines 45-50).

Regarding on Claim 5, Lewis discloses the limitations as discussed in Claims 2, 26 and 27 above. Lewis further discloses: determining that sensitive data in the electronic request includes at least one user password; and applying at least one hash function to the at least one user password (col. 22, lines 58-63).

Regarding on Claim 6, Lewis discloses the limitations as discussed in Claims 5 above. Lewis further discloses: wherein the at least one hash function is a keyed hash function or a non-keyed hash function (col. 23, lines 1-10).

Regarding on Claim 8, Lewis discloses the limitations as discussed in Claims 2, 26 and 27 above. Lewis further discloses: wherein the at least one electronic request comprises at least one protocol over Secure Socket Layer (col. 15, col. 40-45).

Regarding on Claims 9 and 21, Lewis discloses the limitations as discussed in Claims 2, 26 and 27 above. Lewis further discloses: wherein the sensitive data comprises at least one data item selected from a group including credit card numbers, credit card information, account numbers, account information, birth dates, social security numbers, user information, and user passwords (col. 17, lines 5-15).

Regarding on Claim 10, Lewis discloses the limitations as discussed in Claims 2, 26 and 27 above. Lewis further discloses: executing the at least one cryptographic operation using at least one public key (col. 22, lines 20-25).

Regarding on Claims 11 and 22, Lewis discloses the limitations as discussed in Claims 2, 26 and 27 above. Lewis further discloses: wherein the at least one cryptographic operation includes at least one operation selected from a group including encryption operations, decryption operations, hash operations, keyed hash operations, and keyed hash verification (col. 22, lines 60-65).

Regarding on Claim 12, Lewis discloses the limitations as discussed in Claims 2, 26 and 27 above. Lewis further discloses: wherein encrypting includes performing at least one operation on the sensitive data selected from a group including hashing and keyed hashing when the sensitive data is a password (col. 22, lines 58-64).

Regarding on Claim 13, Lewis discloses the limitations as discussed in Claims 2, 26 and 27 above. Lewis further discloses: wherein the at least one electronic request comprises at least one encoded key identifier (col. 23, lines 25-35).

Regarding on Claim 14, Lewis discloses a method for securing sensitive information within server systems, comprising:



parsing at least one electronic request received via at least one Internet coupling (col. 16, lines 15-25);

determining that the at least one electronic request includes sensitive data (col. 3, lines 15-30, col. 14, lines 30-40 and col. 22, lines 40-50);

encrypting the sensitive data (col. 14, lines 26-28); and

storing the encrypted sensitive data in at least one component of the server system (col. 25, lines 50-60).

Regarding on Claim 15, Lewis discloses the limitations as discussed in Claim 14 above. Lewis further discloses: evaluating at least one request for the encrypted sensitive data (col. 14, lines 25-35),

wherein the at least one request is received via at least one coupling with at least one third-party system (col. 38, lines 15-20);

decrypting the encrypted sensitive data (col. 17, lines 1-3);

providing the decrypted sensitive data to the at least one coupling with at least one third-party system (private network connection) (col. 17, lines 1-5).

Regarding on Claim 16, Lewis discloses the limitations as discussed in Claim 14 above. Lewis further discloses: wherein encrypting includes performing at least one operation on the sensitive data selected from a group including hashing and keyed hashing when the sensitive data is a password (col. 22, lines 58-64).

Regarding on Claim 18, Lewis discloses a system for protecting sensitive information within server systems, comprising

at least one processing device coupled among at least one server site and at least one client computer and at least one network (FIG. 2, col. 5, lines 30-40 and col. 15, col. 40-45),

wherein the at least one processing device identifies sensitive data inside the electronic request (col. 2, lines 30-40 and col. 3, lines 15-30),

wherein the at least one processing device applies at least one cryptographic operation to sensitive data in response to the at least one electronic request (col. 14, lines 25-28),

wherein sensitive data of the at least one electronic request is encrypted prior to transfer among components of the at least one server system (col. 14, lines 26-28),

wherein encrypted sensitive data of the at least one server system is decrypted prior to transfer among the at least one network (col. 17, lines 1-3).

Regarding on Claim 19, Lewis discloses the limitations as discussed in Claim 18 above. Lewis further discloses: wherein the at least one processing device determines that the at least one electronic request includes sensitive data by identifying tags indicating that associated data is the sensitive data (col. 6, lines 1-15).

Regarding on Claim 20, Lewis discloses the limitations as discussed in Claim 18 above. Lewis further discloses: wherein the at least one processing device determines

that the at least one electronic request includes sensitive data by identifying tags specified by at least one system administrator that associated data is the sensitive data (col. 6, lines 1-15).

Regarding on Claim 23, Lewis discloses a cryptographic appliance for securing sensitive information within a server system, comprising:

at least one processing device coupled among at least one server system and at least one Internet coupling to evaluate at least one received electronic request (col. 5, lines 30-40 and col. 15, lines 40-45),

wherein the at least one processing device (server) (FIG. 2);

determines when the at least one received electronic request includes sensitive data (col. 22, lines 40-50);

encrypts the sensitive data (col. 14, lines 26-28); and

transfers the encrypted sensitive data among at least one component of the at least one server system (col. 29, lines 27-34).

Regarding on Claim 24, Lewis discloses the limitations as discussed in Claim 23 above. Lewis further discloses: wherein the at least one processing device:

evaluates at least one request for the encrypted sensitive data received via at least one coupling with at least one third-party system (col. 2, lines 30-40);

decrypts the encrypted sensitive data (col. 14, lines 26-28); and

transfers the decrypted sensitive data to the at least one third-party system (col. 17, lines 1-5).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al. (U.S. Patent 6,233,565 B1) herein referred to as Lewis in view of Lirov et al. (U.S. Patent 6,785,810 B1) herein referred to as Lirov.

Regarding on Claims 1 and 27, Lewis discloses a system for protecting sensitive information residing in server environments, comprising at least one processing device coupled among at least one network and at least one client computer (col. 2, lines 30-33), wherein the at least one processing device (server):

receives at least one electronic transaction query (transaction request) from the at least one client computer (client) via at least one secure channel (SSL) (col. 5, lines 30-40 and col. 15, lines 40-45);

encrypts the sensitive data (col. 14, lines 26-28);

transfers the encrypted sensitive data among components of the server environment (col. 29, lines 27-34);

receives at least one electronic information query for the encrypted sensitive data from at least one third-party system via the at least one secure channel (col. 14, lines 25-29);

decrypts the encrypted sensitive data in response to the at least one electronic information query (col. 16, lines 65-67); and

provides the decrypted sensitive data to the at least one third-party system via the at least one secure coupling (private network connection) (col. 17, lines 1-5).

Lewis does not disclose “read a configuration file to determine how to identify sensitive data within the at least one electronic transaction query.”

However, Lirov expressly discloses read a configuration file to determine how to identify sensitive data within the at least one electronic transaction query (col. 8, lines 65-67 through col. 9, lines 1-10).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Lirov’s invention with Lewis to include read a configuration file to determine how to identify sensitive data within the at least one electronic transaction query. One of ordinary skill in the art would have been motivated to allow the server protect the sensitive information during storage (col. 5 lines 15-20).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis as applied to claim 2 above, and further in view of Devine et al. (U.S. Patent 6,598,167 B2) herein referred to as Devine.

Regarding on Claim 7, Lewis discloses the limitations as discussed in Claim 2 above.

Lewis explicitly does not disclose “determining the at least one electronic request includes one or more cookies; identify at least one cookie of the one or more cookies that includes sensitive data; applying at least one cryptographic function or checksum to the at least one cookie.”

However, Devine teaches “determining the at least one electronic request includes one or more cookies; identify at least one cookie of the one or more cookies that includes sensitive data; applying at least one cryptographic function or checksum to the at least one cookie” (col. 8, lines 45-60).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Devine’s invention with Lewis to have included the cookie with the motivation being to allow adding an additional level of security (col. 8 lines 55-60).

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

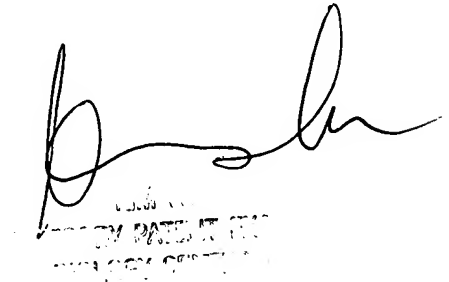
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bao Tran N. To whose telephone number is 571-272-8156. The examiner can normally be reached on Monday-Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bao Tran N. To

12/23/2005

A handwritten signature in black ink, appearing to read 'Bao Tran N. To', with a stylized flourish at the end. Below the signature, there is a faint, illegible stamp or text.